



Note of Appreciation from Al Whitney



A sincere thanks to all of you who have visited, sent emails, snail mails and/or made telephone calls with words of encouragement. Your support has been of immeasurable value in keeping up the spirits. Also, a special thanks to the many of you who have contributed to the Department Laboratory Fund. The Fund income will be used to support the undergraduate laboratories, helping to keep equipment up-to-date, calibrated and repaired. In this way all ECE students will benefit from your generosity. Thank you very much.

It is always fun to learn what life has had in store for you since leaving Barrows (for a few of you - Lord Hall). If you have a spare moment I would always enjoy hearing about your exploits. I can be reached at:

Email: whitney@eece.maine.edu

Snail mail: 1271 Chase Road, Veazie, ME 04401-7067

Tel: (207) 942-0974

Editor's Note: As many of you know Al has been battling pancreatic cancer for the last two years and retired as of August 31, 2006. The Allison Whitney '62 Electrical and Computer Engineering Fund has been established in his name, the income from which is to be used to support the department student laboratories. For any who wish to do so, contributions can be made by sending a check, made out to "University of Maine Foundation" to University of Maine Foundation, 2 Alumni Place, Orono, ME 04469. Please indicate that it is to go to the Allison I. Whitney '62 Electrical Engineering Fund. Gifts can also be made online at: https://www.umainefoundation.org/ssl_secure/

College to Host November Alumni Event

Please plan to join engineering alums for a "Meet the Dean Reception" on Thursday, November 2, 2006 for Interim Dean, Dana Humphrey. Dean Humphrey is the former Chair of Civil and Environmental Engineering on the Orono campus. The reception will take place at the Portland Regency Hotel, 20 Milk Street, Portland, Maine from 5:00-7:30 p.m. Refreshments and hors d'oeuvres will be served and Dean Humphrey will give brief welcoming remarks. This will be a great chance to meet the dean and catch up with your classmates. There is no charge for the reception, but we would appreciate registrations by calling the Dean's Office (207-581-2217) or sending an email to Laurie Fullerton (laurie@eece.maine.edu). Directions: Follow Route I-295 to Exit 7, Franklin Street, Route 1A. Travel Franklin Street to the sixth light, turn right onto Fore Street. At the third



intersection turn right onto Market Street. Travel approximately one-half block and turn right onto Milk Street.

ECE Emeritus Professor Honored



The University of Maine College of Engineering has a tradition of honoring one of our great emeritus faculty members during Homecoming Weekend. This year, UMaine Engineering is paying tribute to Professor Emeritus Carleton Brown (B.S. '49, M.S. '59). We are extending a special invitation to all Electrical Engineering alumni to attend a luncheon for Prof. Brown on October 21, 2006 at 11:00 A.M. in the Soderberg Center in Jenness Hall.

Prof. Brown's "Brownie" career spanned 34 years from 1955 until 1989. He remains in close contact with UMaine Engineering and is extremely well regarded by generations of UMaine students, faculty and staff. He was instrumental in building the great reputation that UMaine electrical engineers enjoy to this day.

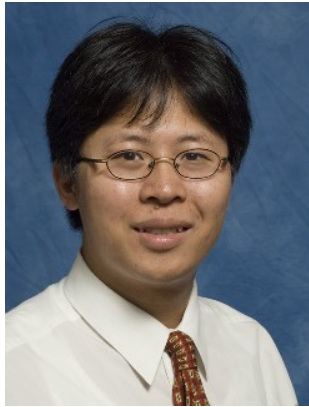
As part of our annual event, we are compiling a book of reminiscences from Brownie's students, colleagues and friends. We would be extremely grateful if you would send us any special (especially humorous) memories that you have of Prof. Brown. The stories will be printed in a booklet and passed out at the luncheon. Even if you cannot attend, we would like to include your stories in our book. You can email them to steven.adam@umit.maine.edu. There is no charge for the luncheon, but we would appreciate it if you would contact us a (207) 581-2216 to make reservations.

2006 Edward Bryand Distinguished Engineering Award Banquet

The twenty-seventh annual Edward T. Bryand Engineering Award Banquet will be held at the Penobscot Valley Country Club, Orono, Maine on Friday, November 3, 2006 at 6:00 p.m. The recipient of the 2006 Edward Bryand Distinguished Engineer Award is ECE alumni Dev Vrat Gupta (MSEE '75). We extend our invitation to all ECE alumni to join us in honoring Dr. Gupta. If you plan to attend, please contact Laurie Fullerton at 581-2216 or laurie.fullerton@umit.maine.edu to make reservations.



Academic Excellence Grant Awarded to ECE Professor

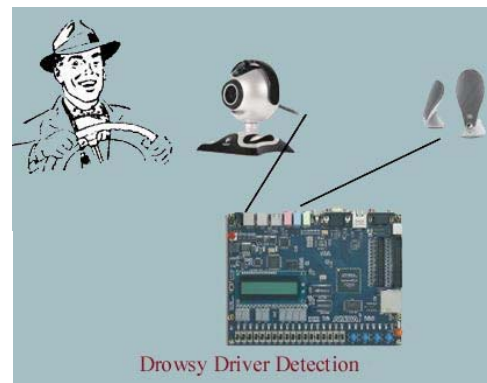


Assistant Professor Yifeng Zhu has received an Academic Excellence Grant (AEG) from SUN Microsystems, Inc. SUN is donating equipment, valued at \$63,960, for eight fully-configured Sun Fire T1000 servers. The equipment will significantly strengthen Dr. Zhu's research lab ensuring its position on the cutting edge of research and education in supercomputing.

This equipment grant will provide an advanced supercomputing platform for a current NSF-supported research project at Dr. Zhu's lab. The project aims to design, evaluate and optimize the parallel I/O middleware for computational science applications. Parallel I/O middleware involves exploiting parallelism between multiple disk drives to alleviate the I/O performance bottleneck for many data-intensive applications running on supercomputers. These Sun Fire T1000 servers are essential to the success of his project. Besides 8GB of DDR2 memory, T1000 servers also contain an 8-core 1.0GHz UltraSPARC T1 processor with CoolThreads technology, which was described by Sun as "the highest throughput and most eco-responsible processor ever created. Drawing about as much power as a light bulb, its unprecedented 32 simultaneous processing threads give the best performance per watt of any processor available."

Undergraduate Students Participate In International Competition

With the help of Yifeng Zhu (Assistant Prof. of Electrical and Computer Engineering) who applied for funds for equipment and supporting materials, four senior undergraduate electrical and computer engineering majors participated in the IEEE Computer Society International Design Competition, one of the most prestigious design competitions in the field. The team designed and built an embedded system to detect drowsiness in car drivers and send them warning signals. Over the past ten years, the U.S. Department of Transportation's National Highway Traffic Safety Administration has determined drowsiness to be one of the most significant causes of private and commercial vehicle accidents, so the team chose a socially and economically significant project. In the course of their project, the students learned to use state-of-the-art design technology not covered in the curriculum. The department has, through this project, realized a need to improve the curriculum in the area of embedded system design and supported Prof. Zhu in two subsequent grant requests related to this project. A \$21,000 curriculum fee was awarded by the College of Engineering to build an undergraduate embedded system lab, and industry has contributed a \$6,435 equipment fund. All of the reference materials and equipment received through this Center for Teaching Excellence (CTE) grant will be supporting another design team



at next year's IEEE competition. Undergraduate students participating in this contest were: Joseph St. Pierre, Jason Thomas, Mathew Drouin and Kevin Goodspeed.

ECE Donors

We extend our appreciation and gratitude to those who have generously supported our department and its students and helped us to maintain its excellence. The list below gives the names of all donors who contributed to the department from July 1, 2005 to June 30, 2006. If we have inadvertently omitted your name, please notify us by contacting Janice Gomm at (207) 581-2223 or Janice@eece.maine.edu.

Gifts of \$1,000 or More

Victor & Sheryl Jipson
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Fairchild Semiconductor
Fannie Mae Foundation

GE
IBM
Merrill Lynch
Microsoft
National Semiconductor
Pfizer Foundation
Tundra Semiconductor
Xerox Corporation

Grants Received

Y. Zhu, "Acquisition of Sun Servers to Support High-end Computing Teaching and Research at the University of Maine," Sun Academic Excellence Grant, \$63,960, Sept. 28, 2006.

Gifts/Donations

Y. Zhu received a \$495 equipment donation from Xilinx, August 1, 2006.

Publications

Peer Reviewed Journals

X. Qin, H. Jiang, **Y. Zhu**, and D. Swanson, "Improving the Performance of I/O-Intensive Applications on Clusters of Workstations," Journal of Cluster Computing, Volume 9, Number 3, Pages 297-311, July, 2006.

S. Turner and **D. Kotecki**, "Direct Digital Synthesizer with Sine-Weighted DAC at 32-GHZ Clock Frequency in InP DHBT Technology," IEEE J. Solid-State Circuits, Vol. 41, pp. 2284-2290, October 2006.

Other

"Mastering MATLAB 7" by Duane Hanselman and Bruce Littlefield was recently translated into Korean. Previous editions of the text were translated into Chinese and Portuguese (Brazil).